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THE TAR HEEL WASH OFF

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UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DEEP RIVER AREA

HIGH POINT, NORTH CAROLINA



Soil Conservation Service
U. S. Department of Agriculture
Washington, D. C.

THE STATE COORDINATOR'S MESSAGE

A new era of agricultural development faces North Carolina today. This is an era of Eastern, rather than Western, farm migration.

Up until the last generation, farm migration went steadily westward. Our pioneers pushed through the wilderness and cleared new lands until the shores of the Pacific ocean were reached. They were followed by the settlers who established new communities on the outskirts of American civilization and they, in turn, have been followed by a steady stream of farm families.

Nature, however, had never designed some of this land for agriculture. Soil, topography and natural resources have all been against successful farming from the start. In these areas, our exploiting land use practices, which have blotted every page of our agricultural history, had their most devastating effect. That effect we all know. It lies in the headlines of every newspaper we read - tragic stories from the great drought areas of the mid-west. And that effect has had this result: the farmers, no longer marching westward, are returning to the lands along the Atlantic coast.

North Carolina, with its soil adaptable to the most varied type of farming, its beneficent and evenly-spaced rainfalls and its ideal climate, is getting many of these "settlers" from the prairie states.

I know of one man from Kansas who sold 160 acres for only \$600 and returned to Guil-

ford county. He had so squandered Nature's gift of topsoil out in Kansas that, when he left, he had reduced his farm to the point where it became practically worthless. Can we afford to let him do the same with our North Carolina? We all know that we have already lost the equivalent of three counties through erosion. Do we dare lose any of what is left?

The value of our woodlands is realized by all of us. We know that we need our forests to control and conserve moisture and we have learned that a farm without well-conditioned woods is a farm doomed. We have gone through our period of ruthless forest destruction and we have paid a staggering bill. We need the woods that have been left to us and we must not let the newcomers raze them to prepare new fields for clean-cultivated crops.

The problem is squarely up to the native farmers and landowners. The advice of the Soil Conservation Service is: Be careful about renting your land. Make sure, first, of the purposes to which it will be put by the new tenant. If the new farmer is a neighbor of yours, advise him and consult with him; let him know what you are doing with your own farm and why you are doing it.

Let him see the beneficial results on your farm of such practices as strip-cropping, contour tillage, good crop rotations and terracing. Show him the highly erosive portions of your fields that you have retired to permanent close-growing vegetation, your timber stand improvement plots and your gully control work. In short, show him how he can become a welcome member of the Deep River community.

WINTER HAY CROPS

The principal crops grown for winter hay are oats, barley, wheat and rye, either with or without annual winter legumes such as Austrian winter peas, vetch or crimson clover. They are usually grown in the fall and cut for hay the following spring. In selecting a crop, it is important to consider the use which will be made of the hay and how well it fits in the general scheme of the individual farm.

Because of their high protein content, legume hays are better for dairy feeding than grass hays. Most farmers, however, prefer to feed mixtures of grasses and legumes to work stock. These mixtures are well suited to soil improvement and conservation, because their nitrogen content helps to replenish the soil's store of this element.

Another important factor which should not be overlooked is the selection of the proper site or field on which to grow the winter hay crops. From the standpoint of soil conservation and erosion control, any field that is too steep to plant to row crops and is reasonably fertile, would fit well into a sound farm program if it were seeded to winter hay crops plus legumes. In this way, the farmer will not only realize a much needed hay crop but will also conserve the soil on his most dangerously erosive fields.

The best time for planting barley, rye, vetch, crimson clover and Austrian winter peas is from September 1 to September 30; however, these crops may be seeded up to October 15. For oats, the best planting period is during the month of October. Wheat should be planted between October 15 and November 15.

WILDLIFE WORK PRAISED

Appreciation of the wildlife conservation work being done in this district by the SCS was expressed late last month by J. D. Chalk, Commissioner of Game and Inland Fisheries of the North Carolina Department of Conservation and Development.

The planting of shrubs and such soil-building and erosion-resisting vegetation as lespedeza is the method used by the Wildlife department to cope with its two major problems - the checking of soil erosion and the preservation of wildlife by supplying adequate food and shelter. In commenting on this planting, Mr. Chalk, in a letter addressed to Dr. J. H. Stallings, State Coordinator, wrote:

"I want to take this occasion to compliment you on the type of erosion work being done. Being a farmer myself I can readily appreciate the great value of this type of work in checking erosion. I was surprised to see the good results obtained on some of the farms where the plantings are just a year old. The gully washing has been checked almost completely and the plantings used in accomplishing this feat are suitable to birds as food and cover.

"I was also impressed with the interest the farmers seem to be taking in this soil erosion work, and I am sure that the educational value of the work will extend far beyond the immediate territory covered by your land-use contract.

"We want you to know that we appreciate this fine work being done here in North Carolina."

FALL WOODLAND ADVICE

In fall thinning of timber stands, removing the dead and diseased trees and giving the healthy trees that remain a chance for straight, vigorous growth, the most important thing to remember is: don't thin too heavily. The light coming through the top of the forest should reach the ground only in small spots. As the sun passes overhead, the lighted spots will gradually move and in this way prevent any one place on the ground from drying out too much.

Although young trees growing under older trees need a certain amount of light, as do crops in the field, too much light will do more damage than not enough light. If too many trees are taken out, the wind and sun will dry the soil and prevent seeds from germinating or kill delicate shoots that have started to grow. The sun also gives grass a better chance to grow. This growth prevents seeds from reaching the soil and competes with the young trees in their fight for food.

Thinning at this time of year should be confined to the hardwoods. Pine cutting should not be started until the middle of October in order to avoid an infestation of the Southern pine beetle.

Fire and grazing are over-present dangers. A small ground fire will do very little damage to large trees but it will destroy fertile, half-decayed leaves and twigs which are essential to young growth. It will take many years to restore this important vegetation once it has been lost. Fire also kills the seed which has fallen and would germinate the following season, along with the young trees that are too small to withstand

even a small fire.

Grazing is very similar in its effect although its method is different. It will do but little damage to the older trees but, through the trampling of hoofs, the soil will become packed and moisture will be prevented from seeping down to the roots. Cattle will make the ground too hard for seed to grow and it takes very few hungry cows to eat all the young shoots in the area or trample and break those which they pass by.

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DON'T OVERLOOK GULLIES

This is also the time of year when the farmer will do well to look over the gullied areas on his farm.

The deep gullies that are still active may be checked, and their encroachment on the fertile, cultivated fields halted, if they are plowed or dug up now for seeding to some fall seeds such as rye grass and red top. The gully should be mulched with a litter of hardwood leaves, pine needles or small pine boughs. Small check dams made of pine brush should also be placed at intervals in the channels.



EDITORIALS

THE TARHEEL WASHOFF
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NORTH CAROLINA AREA

FEDERAL BUILDING - High Point, N. C.
STATE COORDINATOR - Dr. J. H. Stallings

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PATIENCE, NOT MAGIC

An illustration that patience rather than magic produces results in soil erosion control may be found on a corn field on the Blair Dairy farm adjacent to Blair Park. Mr. P. M. Davis has employed strip-cropping and contour tillage and soil washoff has been arrested.

The land on the top of the field responded readily to treatment. Today, the corn stalks are high and vigorous, and the ears are big and solid. In the intervening strips of close-growing vegetation, the lespedeza has attained a good growth, is thick and heavy.

On the bottom reaches of this field, however, near the bed of an old stream, the land was in very poor shape when soil conserving operations were begun. This stretch had borne the full brunt of the runoff of rainwater, which had gained

constantly increasing speed as it raced unchecked down the slope. The ground was scarred with innumerable small gullies and almost all of the topsoil had been washed into the stream bed..

Today, to the casual observer, little progress has been made. The lespedeza growth is sparse, and bald patches of eroded ground show through the thin layer of vegetation. Nevertheless, upon closer inspection, definite progress will be seen. The soil that is left is being held in place and the gullying has been put under control. Given time and patient treatment, this section of the field will again be fit for profitable cultivation; whereas, had it not been given the treatment it is now receiving, it would soon have sunk to a level from which cultivation could never have been resumed.

It is only human nature that the farmer whose land approximates that of the lower portion of this field should be disgruntled when he looks at a farm with land that approximates that of the upper. He sees no reason why his soil conservation practices should not show similar satisfactory results immediately.

It is to him that the SCS brings the advice, "Be patient." As in the case of the poorer section of the field used as an illustration, a beginning has been made - the forward march of erosion has been halted.

No farmer should jeopardize the gains he has already won by slipping back to former destructive land-use practices simply because soil conservation methods on his own farm have not shown as good results as they have on his neighbors.

FALL TERRACE MAINTENANCE

Proper fall plowing is the most important phase of terrace maintenance as improperly maintained terraces increase rather than retard erosion. The following procedure is recommended by the engineering department of the Soil Conservation Service:

First - plowing should start with the back furrow at the terrace ridge, all furrows thrown toward the ridge at both sides. Continue until bottom of channel is reached.

Second - the back furrow should be started six to ten feet above the channel, throwing all furrows to it until flowline is reached. This will leave a dead furrow in the flowline. In order to prevent the building of a ridge above the channel, this land should be varied from year to year.

Third - the remaining land may be plowed as separate land.

On all fields, whether or not they are to be plowed this fall, it is advisable to throw loose dirt and silt out of the terrace channel. The Soil Conservation Service has a plan for a simple, inexpensive, home-made V-drag which we will be glad to send to any farmer upon request.

No terrace is effective unless the outlet is kept in good repair. If the outlets are neglected, the very gullies will be formed which the terraces have been constructed to prevent.

In many cases, the Soil Conservation Service has established meadow strips and other types of vegetative outlets. These should be mowed at this

time to prevent excessive silting and to enable the grasses to spread and obtain a thicker stand. Brush should be placed on spots where soil washing has started so as to catch soil and seed and thus establish vegetation more firmly.

On other fields, where the contour of the ground has been such that meadow strip outlets have not been possible, the Soil Conservation Service has constructed terrace outlet ditches. These ditches are in need of inspection every now and then to make sure that no danger spots develop.

Baffles - small ribbons of cement across the ditch - must be watched carefully at all times, as they have two such danger spots. The first of these is the hole that will always appear just under each baffle. When this hole gets deep enough to look dangerous, loose rock should be piled in it. If this is not done, the entire little dam may cut out underneath.

The second spot is the baffle end. If it looks as if the water is going to cut around the ends, sod should be taken up from a meadow or pasture and placed in the washes so that the cutting can go no farther.

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NOTE TO FARMERS

All farmers are requested to feel free to call upon the Soil Conservation Service at any time for additional information concerning any phase of soil erosion control work. Drop a line to: Soil Conservation Service, Federal building, High Point, or, better yet, come to the office to see us.

LESPEDA ZA SEED

With the fall season rapidly approaching, it is time for the Deep River farmer to consider an important aspect of his erosion control program - the saving of lespedeza seed for next year's crop.

In the early part of the SCS erosion control program, some seed was supplied. This was done to get the program started in the area. The SCS now expects the cooperating farmers to supply their own seed from this year's crop with which to carry on their agreements.

The rains for the past thirty to sixty days have been very good for the production of hay and seed. For the farmers who are growing Kobe, Tennessee #76 and common lespedeza, a pan attachment to the mower is one of the best methods of saving the seed. These seed pans can be purchased at hardware stores and Farmers' Cooperative Exchanges for about \$6 apiece. Korean lespedeza seed can be harvested with the seed pan attachment but a much more successful method is to mow the lespedeza after it has fully matured or reached a brown or chocolate color and thrash it in an ordinary grain thrasher. Special adjustments should be made on the machine for efficient thrashing and cleaning.

Lespedeza should not be harvested with the expectation of getting a hay crop and also a seed crop, as the seeds are too immature when cut in the hay stage. It is a good plan to leave out certain fields for seed. Fields mowed for hay and which are to remain over in lespedeza next year, should not be mowed too closely as too close cutting will not produce sufficient seed for reseeding. The lespedeza should be cut

with sufficient stubble and early enough that seed will be produced before frosts. The Kobe, Tennessee #76 and common seed should not be harvested until well matured and after frost.

The prospect for seed prices for next year are good. It is a good practice to pan seed, leaving practically all the residue for soil improvement and erosion control. With an ordinary stand and growth using this method, you should be able to save from two hundred to five hundred pounds of seed per acre. Korean cut and thrashed will make heavier yields.

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WHAT CONSERVATION MEANS

Conservation means the wise use of natural resources with special regard for the following considerations:

1. Securing the greatest ultimate good for the greatest number of people and guarding the interests of the general public in these natural gifts.
2. Preventing waste of resources and losses due to harmful forces.
3. Renewing, under conditions that make healthy growth possible, those natural resources which can be replaced.
4. Transmitting this heritage of assets to coming generations in the best possible condition consistent with wise use.

R. Bruce Etheridge, Director
North Carolina Dept. of
Conservation and Development

THE PROOF OF THE PUDDING

The best corn crop he has ever had, plus a growing season that started with an abnormally dry spring: that is the result, contrary to all former agricultural logic, which has been obtained this year by H. D. Sears whose farm adjoins the local CCC camp.

"I hate to think of the crop I would have had to show today," Mr. Sears said, "had I kept to the old methods of farming for the immediate present without paying any attention to what my land-use practices were doing to the future fertility of the soil. Why, a few years ago, if the climatic conditions were ideal throughout the season, I had all I could do to raise a passable crop on my thin, washed-out land. And if the weather were at all bad, I knew that I had wasted almost all of my time, money and effort."

Mr. Sears has carefully studied the demonstrational work of the Service throughout the project area and has adapted its salient features to his own agricultural needs. His farm today is an outstanding example of what any farmer may accomplish who studies this demonstrational work with an open mind and puts its lessons to intelligent use.

The field upon which his record crop of corn has been grown had been planted, throughout the two previous seasons, to lespedeza. It is now strip-cropped and next year, the contour strips which are in lespedeza will be planted to corn while the strips which are now in corn will be planted to rye and winter wheat followed by lespedeza. In addition, Mr. Sears has practiced contour tillage throughout.

"This is the first year I have not had to deal with soil washing on this field," Mr. Sears declared. "Even the heaviest rains of the summer have not washed away any of the topsoil. When the excess water runs off down the slope, instead of being dirtied and muddied, it is still clear enough for drinking purposes."

In addition, Mr. Sears has converted his steeper slopes, where erosion and gully formation have been bad, to permanent pasture and is planning to increase his livestock holdings to get the full advantage from his increased pasturage. He has planted a mixture of common, Korean and Kobe lespedeza along his steep highway banks and has effectively checked road erosion. The infertile soil along the highway no longer washes down upon the fertile fields he uses for cultivation. He has planted native shrubs in odd corners of his fields and along his creek banks and can already report an increase in wildlife upon his land.

"I used to sow my lespedeza seed sparingly," Mr. Sears said, "and the results were disappointing. Now I sow three times as much seed to the acre; get five times as much returns in hay, and have an incalculable increase in land benefit.

"The use of lespedeza has also cut my fertilizer costs," Mr. Sears concluded. "Formerly, I used an expensive mixture to build up the nitrogen content of the soil. The lespedeza now supplies this nitrogen free. Today, I use a fertilizer that is a mixture of potash and superphosphate, of which I can use a much greater amount, as the cost is considerably less."



UNITED STATES
DEPARTMENT OF AGRICULTURE
Soil Conservation Service
High Point, N. C.

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